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For Inclusion in the Administrative Record Memorandum

To: USEPA Region 2

From: TRC Environmental Corporation

Subject: Woodbrook Road Dump Superfund Site South Plainfield, NJ

Date: May 7, 2018

This Technical Memorandum has been prepared in response to the recent issuance by the United States Environmental Protection Agency ("EPA" or "the Agency") of the 100% Remedial Design Analysis Report (100% RD), September 19, 2017, CDM Smith for EPA and US Army Corps of Engineers ("USACOE") which was adopted as final by EPA on November 9, 2017) (hereinafter referred to as the "100% FD"), and the related Explanation of Significant Difference that was published by the Agency on February 5, 2018 ("ESD"), for the Woodbrook Road Dump Site in South Plainfield, New Jersey (the "Site"). Previously, on August 13, 2013 EPA published its Proposed Plan and the rationale set forth in it for EPA's proposed "Preferred Alternative" (Alternative 6) and issued the Record of Decision (ROD) selecting Alternative 6 on September 30, 2013. Prior to the issuance of the ROD, and within the prescribed comment period, TRC presented comments to the EPA on September 16, 2013 which demonstrated that EPA's selection of the Alternative 6 remedy is inconsistent with the NCP and at odds with longstanding EPA policy and precedent.

As discussed in greater detail below, we respectfully submit that both the 100% FD and the ESD confirm that the Agency's remedy selection process remains flawed and inconsistent with the National Contingency Plan ("NCP"). Therefore, the Agency's ongoing pursuit of the Alternative 6 complete polychlorinated biphenyls ("PCBs") removal remedy as memorialized in the ESD represents arbitrary and capricious decision-making that will result in costs that are unrecoverable under the Comprehensive Environmental Response Compensation and Liability Act, 42 U.S.C. §9601 et seq. ("CERCLA"). Moreover, because of the significant changes in the remedy selected in the 100% FD and the ESD, without justification, EPA should reopen the ROD for public comment, which will lead inevitably to the selection of Alternative 4.

I. Project Background & EPA Decisional History:

a. Background

By way of background, the Site consists of 70 acres and is made up of two parcels separated by the Dismal Brook. Texas Eastern Terminal Company ("TETCO") acquired the 44-acre parcel west and south of the Dismal Brook ("Western Parcel") on December 3, 1971 from New ERA Associates, and acquired the 26-acre parcel east and north of the Dismal Brook ("Eastern Parcel") on June 6, 1972 from Vincent P. Brunelli. TETCO acquired the Site for a proposed but never constructed synthetic natural gas production facility planned in response to increasing regional demand. It remains undisputed in the Administrative Record that TETCO has never developed, operated or otherwise used the Site. A small portion of the Site lies on land owned by the Borough of South Plainfield (Block 388 Lot 1.01). Unknown to TETCO at the time of Site purchase, Cornell-Dubilier Electronics, Inc. ("CDE") had manufactured PCB containing capacitors at a facility less than a mile from the Site from 1936 – 1962, and PCB containing capacitor waste from the CDE facility had been dumped at the Site.

In 1999 the capacitors were discovered at the Site; thereafter TETCO conducted two removal actions. The Site was proposed for listing on the NPL on September 13, 2001, and was subsequently placed on the NPL on April 30, 2003. On June 30, 2003, TETCO voluntarily entered into an Administrative Order on Consent ("AOC") with EPA to complete the Remedial Investigation/Feasibility Study (RI/FS) for the Site. **Even though EPA identified CDE as the party responsible for the PCBs and issued CDE a Unilateral Administrative Order ("UAO") seeking CDE's participation in completing the work, CDE has continued to ignore EPA and has not performed any work or paid for any response costs at the Site.**

With EPA oversight, TRC, a contractor for TETCO, initiated the Remedial Investigation ("RI") in 2007. The Draft Final RI Report, which summarizes the data and risk assessments, was approved by EPA in July 2012. Based on the RI and risk assessments, EPA identified only one contaminant at the Site that poses a potential risk to human health, PCBs in soil. The RI also found that the highest concentrations of PCBs found on-Site correspond to soil in the vicinity of the capacitor parts on the Site. The RI further confirmed that the Site poses no risk to groundwater or surface water.

The Feasibility Study ("FS"), which evaluated alternatives to remediate the Site, was completed in 2013. A ROD, signed in September 2013 documented EPA's remedy selection decision (Alternative 6) to excavate and dispose, off-site, soil and debris contaminated with PCBs at concentrations greater than 1.0 part per million (ppm). A key requirement of the ROD is to provide an estimated cost for the implementation of the selected remedial alternative. In the ROD, EPA estimated that it would cost $24,354,000 to complete the cleanup of the Site utilizing Alternative 6, the selected remedial option.

On September 30, 2013, the EPA approved TRC's Certification of Completion of the RI/FS for the Site. The completion of the RI/FS satisfied TETCO's obligations to EPA under the AOC. To date TETCO has incurred in excess of $7.2 million of response costs at the Site.

On September 19, 2017 EPA issued the 100% RD for the implementation of Alternative 6. Following issuance of the RD Report, EPA determined that the cost of implementing Alternative 6 would almost double from $24.4 million per the ROD to $45.3 million based on the 100% RD. On February 5, 2018, EPA issued an ESD to purportedly explain the cost increase.

b. In Issuing the Record of Decision ("ROD"), EPA Acted Arbitrarily and Capriciously in Selecting Alternative 6 Instead of Alternative 4

EPA's review of the FS essentially focused on two remedial alternatives. Alternative 4 which includes removal and off-Site disposal of PCBs in excess of 100ppm coupled with consolidation/capping of PCBs between 100ppm and 1ppm in approximately 5 out of the 70 acres of the Site (the "Removal/Capping Remedy"), and Alternative 6, which contemplates the removal of all PCBs in excess of 1ppm (the "Complete Removal Remedy"). Based on the Administrative Record including the RI/FS, letters and additional submissions by TRC (in meetings and before the National Remedy Review Board), it was demonstrated that the remedy at the Site which best met the requirements of the CERCLA and the standard for remedy selection in the NCP is the Alternative 4 Removal/Capping Remedy. While the Administrative Record at the time of the ROD shows on its face that EPA's selection of Alternative 6 is inconsistent with CERCLA and the NCP, as discussed in Section II below, both the 100% FD and the ESD further establish that EPA's remedy selection process which lead to the selection of Alternative 6 is inconsistent with the NCP and therefore all resultant costs are non-recoverable.

The Administrative Record is clear that the Alternative 4 Removal/Capping Remedy was determined by EPA to be protective of human health and the environment, implementable, consistent with the NCP, in compliance with Applicable, Relevant, and Appropriate Requirements ("ARARs", e.g., State Standards) and Green Remediation principles. Additionally, Alternative 4 was supported by the Borough of South Plainfield, and TETCO submitted a draft form of Deed Notice precluding the recreational reasonably anticipated future use that formed the basis of EPA's risk evaluation. Finally, at the time the ROD was issued Alternative 4 was at least five (5) times more cost-effective than the Complete Removal Remedy ultimately chosen by EPA.[1] Notwithstanding the foregoing, EPA mistakenly selected Alternative 6 which contemplates the complete removal of all PCBs in excess of the Preliminary Remediation Goal ("PRG") of 1ppm.

[1] See, Final Draft Feasibility Study, Tables 2, 3 and 4 which provide the relative scoring for each component of the screened remedial alternatives.

On August 13, 2013 EPA published its Proposed Plan and the rationale set forth in it for EPA's proposed "Preferred Alternative" (Alternative 6). On September 16, 2013 TRC submitted twenty-six pages of detailed comments (excluding Appendices) in support of the proposition that the selection of that remedial alternative would be inconsistent with the NCP under CERCLA, at odds with longstanding EPA policy and precedent, and otherwise arbitrary and capricious. Instead, EPA should have selected Alternative 4, which consists of excavation of PCB-contaminated soil over 100ppm (which EPA determined constitutes the sole Principal Threat Waste ("PTW") at the Site), consolidation and capping onsite of "low-level threat" soil containing PCB concentrations between 1 and 100ppm, and institutional controls designed to ensure the integrity of the cap and maintain the restricted use-only nature of the Site. As discussed in detail in the EPA approved FS[2] and further below, Alternative 4 is that alternative which best balances the remedy selection criteria EPA is required to weigh under the NCP. Since the RI/FS was completed and EPA published its Proposed Plan, TRC has provided numerous comments to EPA in opposition to the Agency's selection of that remedy for the Site, demonstrating that the remedy selection process was inconsistent with the NCP, and instead urging EPA to select the NCP compliant Alternative 4 partial removal and capping remedy[3]. Notwithstanding these comments, EPA has elected to continue down the Alternative 6 path.

II. EPA has Continued to Ignore the Administrative Record, Superfund Precedent and its Own Guidance by Continuing its Pursuit of Alternative 6 in the Face of a Flawed "Final" Design and ESD:

EPA's adoption and issuance of the 100% FD Report and ESD in furtherance of Alternative 6 are both seriously flawed and are at odds with the Agency's own decisional process. These new findings, the Administrative Record and the Agency's own guidance documents make clear that all costs in furtherance of Alternative 6 are inconsistent with the NCP and are therefore unrecoverable.

As discussed below, EPA's recently issued 100 % FD and ESD nearly doubles the cost of Alternative 6 making it almost an order of magnitude (e.g., 10x) more expensive than the higher ranked Alternative 4. As a threshold matter, the use of an ESD to effectuate such sweeping and fundamental remedial change is inconsistent with CERCLA, the NCP (as well as EPA's own guidance on selection of post-ROD administrative mechanism changes). This further substantiates the conclusion that Alternative 6 was the inappropriate selected remedy. The EPA's 100% FD and ESD entail a fundamental alteration in scope and cost to the ROD. This

[2] The Woodbrook Road Dump Site Draft Final Feasibility Study identified and evaluated potential remedies in accordance with the remedy selection evaluation criteria contained in the NCP at 40 CFR Part 300.430 and identifies the components Alternative 4 as the highest ranked. Had the Proposed Plan and ROD been conducted in accordance with the NCP remedy selection criteria, the EPA approved FS should have led to the selection of Alternative 4.

[3] See, August 8, 2013 Letter from W&S to Walter Mugdan; September 16, 2013 TRC Comments on EPA's Proposed Plan Woodbrook Road; December 23, 2014 Letter from W&S to Peter Kautsky and Delmar Karlen; March 2015 TRC Settlement Proposal to USEPA/USDOJ; January 28, 2016 Letter from CSG to P. Kautsky and D. Schwenk;.and November 3, 2017 Letter from TRC to Walter Mugdan.

fundamental alteration in scope and cost contained in the 100% RD should have resulted in the issuance of a revised ROD pursuant to the NCP. Instead EPA chose to issue an ESD with a one-page cost estimate that provides no real justification for the differences between the ROD and the 100% FD. This is the epitome of arbitrary and capricious action.

To date, EPA has never provided any support for its determination that the Alternative 6 remedy is cost effective. See, e.g., ROD Responsiveness Summary at 2.1.1.1. In fact, the Administrative Record is devoid of any calculations or comparative cost analysis in support of this conclusion. See, e.g., ROD Responsiveness Summary at 2.1.1.7; 2.1.3.6; 2.1.3.7 all of which request justification of cost—in each instance the Agency simply refers the reader back to Section 2.1.1.1 which is non-responsive to this query and provides no support for cost-effectiveness.

In fact, EPA's only discussions concerning cost are actually supportive of the approval of Alternative 4. In justifying its selection of the Alternative 6 remedy to the National Remedy Review Board ("NRRB") EPA Region 2 made the following conclusions and findings:

1. The NRRB expressed concern over the Alternative 6 remedy's significant impact on wetlands and the use of CERCLA to address nonhazardous debris and refuse that does not pose an unacceptable risk. See August 8, 2013 Memo from Walter Mugdan, Director Emergency and Remedial Response Division, EPA Region 2 to Amy R. Legare, Chair, NRRB. In response to this concern Mr. Mugdan stated that:

   "The Region believes that the volume estimates in the FS are conservative enough to account for the heterogeneity in the fill, but agrees that additional sampling in the remedial design (RD) phase of the project would result in a more focused excavation plan and is likely to reduce the volume of material exceeding the recommended remediation goals".

   "As noted in the Site Characterization Comment, the Board suggests and the Region agrees, that the volume estimates in the FS are conservative, and more sampling may reduce the volume that actually needs to be removed to satisfy the Remediation Goal." Id. at 5 (Emphasis added).

2. In the Responsiveness Summary, the Agency also stated that "EPA expects that the volume estimates in the FS are conservative, and more sampling may reduce the volume that actually needs to be removed to satisfy the remediation goal, potentially lowering the overall cost of the remedy. The frequency of sampling surrounding the principal threat areas is very robust, and these areas are well characterized. See ROD Responsiveness Summary at 2.1.3.7.

However, the EPA's prior statements predicting reduced waste volumes and costs are now proved to be seriously flawed, based upon the Agency's actual supplemental Pre-Design Investigation ("PDI") sampling and revised cost estimates. The volumes of soil above 1ppm have actually increased, not decreased; and the methodology proposed by EPA including the removal and disposal of additional PCBs, non-PTW/non-CERCLA regulated refuse, and

arbitrary and capricious elements such as the construction of a rail spur to implement the remedy has nearly **doubled the cost** of the remedy when compared to estimates in the ROD as opposed to decreasing it. (The EPA's ESD cost estimate for Alternative 6 has increased from roughly 5-times higher to 10-times higher than the ROD estimated costs to implement Alternative 4.) Such costs are all outside the scope of CERCLA and are not recoverable under the NCP.

a. EPA Ignored the Administrative Record and Selected the Wrong Reasonably Anticipated Future Land Use for the Site

In addition to the considerable concerns expressed over cost considerations, prior to EPA's publication of the Proposed Plan the NRRB also expressed concern over the Agency's selected reasonably anticipated future land use for the Site:

> "**The Region has chosen the most conservative reasonably anticipated future land use assumption; namely recreational.** Accordingly, the Region proceeded and developed recreational land-use based alternatives. **The Board notes the presently preferred alternative (alt. 6) is significantly more costly than other protective alternatives (alts. 4 and 5). The Board recommends that the Region thoroughly and clearly, in the decision documents, explain the rationale for the preferred alternative selection."** Id. At 4-5.

In response to the NRRB's concerns and recommendations, Mr. Mugdan stated that:

> "The Region acknowledges that its preferred remedy is conservative, but believes, however, that leaving PCB-contaminated debris in a wetland environment creates too many uncertainties. Furthermore, removing PCB contamination in excess of 1 ppm allows more flexibility in the future use of the land and, as previously stated, would be consistent with NJDEP Non-Residential Direct Contact Soil Standard for PCBs. Id. At 5.

In response to the Agency's Proposed Plan and prior to the adoption of the ROD, the private landowner of the Site, TETCO, provided the Agency with a draft Deed Notice that expressly rejects the Agency's reasonably anticipated use of the Site for recreational purposes. That Deed Notice provides in pertinent part that:

> **"RESTRICTED USE. The Owner has agreed to and does hereby restrict the use of the Property to industrial or non-residential uses, while prohibiting the following uses: child care facility, public, private or charter school, residential, recreational and similar uses. Under no circumstances may the Property be used for open space or active or passive recreation of any manner."** See TRC 9/16/2013 Comments to the EPA's Proposed Plan, Appendix VI (Emphasis added).

Additionally, the Borough of South Plainfield submitted a letter to EPA confirming that the

Site is zoned industrial and that the Borough's preferred remedy for the Site was Alternative 4 not 6. See TRC 9/16/2013 Comments to the EPA's Proposed Plan, Appendix V

Therefore, on the issue of the appropriate/applicable land use, it cannot seriously be disputed that the Site is privately owned and remains zoned industrial. To leave no room for doubt, the landowner of the Site, TETCO, presented the Agency with a draft Deed Notice that unambiguously restricts use and access to the Property and further prohibits site use for recreational purposes. Notwithstanding the insurmountable evidence as to the current and potential future land use at the Site, the Agency ignored this information and adopted the ROD a mere 10 business days following its receipt of this information. While TETCO does not want the filing of the Deed Notice to be construed by EPA as interference with the Agency's remedial efforts, the Company remains prepared to record the Deed Notice.

In the face of this information, EPA had no choice but to consider the industrial ownership of the Site and reject any and all recreational uses of the property. EPA should have approved Alternative 4, and in the event that the property was sold and/or the Deed Notice is removed thereby allowing for the recreational use of the Property, the need for PCB removal work could always be re-visited as part of the routine Superfund five-year review process.[4]

b. The Agency has Still Failed to Conduct an Analysis of Costs as Required by the NRRB, the NCP, and CERCLA

At the time of the RI/FS and Proposed Plan in 2013, the estimated cost of Alternative 6 was nearly five (5) times that of Alternative 4. As noted above in Section II.a., the NRRB noted this significant cost disparity and recommended that Region 2 "thoroughly and clearly, in the decision documents, explain the rationale for the preferred alternative selection". See August 8, 2013 Memo from Walter Mugdan, Director Emergency and Remedial Response Division, EPA Region 2 to Amy R. Legare, Chair, NRRB at p. 5. Not only did the Agency fail to follow the NRRB's recommendation in the ROD and supporting documents, the Region similarly ignored the land use considerations that were presented to the Agency on September 16, 2013.

Almost four (4) years later, EPA published the 100% FD Report that failed to include any cost estimate but did include remedial components that were not contemplated by the ROD including the same vegetative cap in the same location as the Alternative 4 cap, the construction of a rail spur, and the destruction of significantly greater quantities of wetlands.

In fact Section 3.5 of the 100% FD (Cost Estimate Section) states that a cost estimate was not completed for the FD Report but will be done in the future. However, this statement is inconsistent with other parts of the FD Report. In Section 3.2.20 (Uncontaminated Fill Handling) purportedly evaluates remedial options based on "cost" to select an appropriate

[4] This is the very process EPA proposes to follow with respect to Alternative 6. The ROD provides that because Alternative 6 "would result in hazardous substances, pollutants, or contaminants remaining at the Site above levels that allow for unlimited use and unrestricted exposure, a five-year review would be required. **The purpose of the five-year review would be to assure that the land use remains unchanged.**" See ROD at p. 28.

alternative to handle fill. It is clearly arbitrary to select an alternative or portion of an alternative design based on "cost" without having completed a detailed (let alone any) cost estimate while publishing a misleading document in that regard.

1. The ESD fails to accomplish its primary regulatory obligation, namely, to explain the differences in scope and cost between the ROD and the 100% FD. The ESD indicates that the primary driver of the doubling of costs is the significant cost differential related to the increase in waste volume. This statement is plainly inaccurate. The ESD (page 4, second paragraph of the Description of Significant Differences section) provides that the volume of Subtitle D PCB waste has changed from 168,960 tons to 169,550 tons (a difference of 590 tons which constitutes far less than 1%). Further, the ESD states that the volume of Toxic Substances Control Act ("TSCA") material has increased from 13,975 tons to 16,470 tons (a difference of only 18%). **Thus, in the aggregate, the waste volume quantities have increased by 1.7% yet the ESD remedial cost estimate has increased nearly 100% when compared to the ROD.**

2. Section 3.2.20 of the 100% FD concludes by stating that for fill handling "Option 2 provides the best compromise of costs and protection of the environment and public safety. Option 2 is selected as the approach for the RD". Yet there is no explanation in either the 100% FD or the ESD to support this statement.

3. The same claim of cost evaluation is made in Section 3.2.11 (cost effective selection of excavation method analysis), Section 3.2.19.2 (cost effective selection of rail car alternatives for disposal). However, the Final RD process, in fact, demonstrated an almost complete lack of cost consideration. The primary text of the 100% FD is 67 pages (not counting the many appendices), yet it is devoid of comparative cost analysis. Instead, the 100% FD report appears devoted solely to which rail option should be selected, as opposed to whether the methodology included in the ROD, trucking of waste, should be abandoned in favor of a new rail alternative that unnecessarily adds great cost. In fact, as discussed in greater detail in Section II.f below, it appears that greater focus was placed on the best methods to handle non-contaminated fill, the cost of which cannot even be recovered under CERCLA.

4. Clearly the 100% FD Report was issued prematurely and is inadequate since by EPA's own admission a cost estimate for the design was not prepared. This is further compounded by the fact that the 100% FD forms the basis for the ESD.

The decision-making process employed by the Agency here is fundamentally equivalent to walking into a car dealership and purchasing a Cadillac without first knowing how much one costs and what options it contains.

Increasing the cost of remedial activities by approximately 100% (on top of an already conservative and dubious remedy selection decision from a cost perspective as acknowledged by both the NRRB and the Region) entails a fundamental alteration in scope and cost so as to constitute arbitrary and capricious action on the Agency's part. The inclusion of cost

effectiveness in CERCLA is a clear mandate to ensure that EPA does not have a license to squander resources either in the expenditure of public funds or in the recovery of those funds from a private party.[5] When a fundamental change is made to the basic features of the remedy selected in a ROD with respect to scope, performance, or cost, the lead agency is required to develop and document the change consistent with the ROD process (NCP §§300.435(c)(2)(ii)(A) through (H)). This has not occurred.

When the ESD was published on February 5, 2018, it contained for the first time a one (1) page cost estimate for the Alternative 6 remedy at a price tag of $45.3 million. See ESD at Table 1. The revised cost contained in the ESD is now even greater than the rejected most expensive alternative contained in the ROD (Alternative 3 $41.5 million). At the time it initially selected Alternative 6 over Alternative 4, the Administrative Record was virtually devoid of any comparative cost analysis by EPA. Rather, EPA simply concluded that Alternative 6 was cost effective without providing any rationale, thereby ignoring the NRRB's request for a thorough explanation of the Agency's decision-making. In effect, EPA concluded that volumes would be reduced and the remedy would get less expensive upon completion of the PDI. As noted above, based on the PDI results, **the justification for the Agency's selection of the Alternative 6 remedy has turned out to be untrue.**

EPA's guidance on the role of cost in selection of CERCLA remedial actions strongly supports this conclusion. The Agency has determined that "[c]ost is a central factor in all Superfund remedy selection decisions." Role of Cost in the Superfund Remedy Selection Process; EPA Sept. 1996 at 1. In fact, the cost of remedies is a "co-equal mandate" under CERCLA with the statute's emphasis on remedies that maintain protectiveness over time. *Id.* at 2. Accordingly, EPA's cost guidance states that "large sums of money should not be spent" actively managing low level threat wastes that can be reliably contained onsite. See Id. at 4. In addition, "in practice, decisions typically will turn on the [remedy selection] criteria that distinguish the different cleanup options most." Id. at 5.

Incredibly, EPA adopted and published the 100% FD Report without a cost estimate and issued the ESD with a cost estimate that consists of a mere one-page long table, clearly lacking the detailed backup cost substantiation necessary for the public to evaluate such a substantive change. This inadequate attempt at a cost estimate, particularly where EPA's underlying decision was predicated upon volumes and remedial cost disparities going down, not up, in relation to Alternative 4, falls short of the intent of the NCP and EPA's own cost estimation guidance. (A Guide to Developing and Documenting Cost Estimates During the Feasibility Study, EPA July 2000); and Role of Cost in the Superfund Remedy Selection

[5] In *The Role of Cost Guidance*, which is intended to clarify "the role of cost as established by existing law, regulation, and policy," the Agency made clear that the "*consistent* application of existing national policy and guidance *will* result in the selection of cost-effective remedies." *Id.* at 1, 2 (emphasis supplied). Indeed, EPA's own website, entitled "Cost in the Remedy Selection Process", https://www.epa.gov/superfund/cost-remedy-selection-process, which was recently updated on December 20, 2017, states that while not changing policy, "EPA hopes to ensure that all stakeholders involved in the Superfund process fully understand the important role of cost in remedy selection under existing law, regulation and policy, and to summarize recent initiatives aimed at enhancing the cost-effectiveness of remedial actions." As such, this guidance should have been and must continue to be afforded considerable weight by Region 2 in its remedial decision-making and deliberative processes for the Site.

Process; EPA Sept 1996; "EPA ROC Sept 1996"). The increased cost and scope found in the 100% FD and the ESD constitutes a fundamental alteration in scope and cost so as to again constitute arbitrary and capricious action.

The ESD identifies a cost increase from $23.7M to $45M, almost a two-fold increase from the ROD estimate (a difference of $21.3M) which was already identified by EPA as a conservative remedy[6] that was significantly more costly than Alternative 4. This extreme cost change is beyond the latitude afforded the Agency for moving forward with an ESD at Section 117(c) of CERCLA. When a fundamental change is made to the basic features of the remedy selected in a ROD with respect to scope, performance, or cost, the lead agency is required to develop and document the change consistent with the ROD process (NCP §§300.435(c)(2)(ii)(A) through (H)). When fundamental changes are proposed to the ROD, the lead agency must conduct the public participation and documentation procedures specified in NCP §§300.435(c)(2)(ii) and 300.825(a)(2). For example, as more fully set forth in TRC/TETCO's response letter dated May __, 2018, in *United States v. Burlington Northern Railroad Co.*, a hazardous sludge that was to be pumped out of the site contained more rock than anticipated, requiring a modification of the already-selected remedial action plan. One modification, the addition of a gravity settling tank to remove the rock in the sludge, increased the remedy's cost by $100,000 to a total of $2.3 million. The court held that this modification did *not* require reconsideration of the remedy currently. However, subsequent post-ROD difficulties increased costs by approximately 61% (or $1.4 million). The Tenth Circuit affirmed the district court's holding that this increase fundamentally altered the remedy "with respect to scope and cost," and that failure to amend the ROD was inconsistent with the NCP.

c. <u>The Use of Rail as Articulated in the 100% FD is Inconsistent with and Violative of the ROD and the NCP</u>

The ROD expressly states that the trucking of the waste off-Site is viable and that "designated truck routes already exist that can route trucks out of South Plainfield without using residential streets", <u>see</u> ROD at p. 26, and that "short truck trips should be expected to remove the waste from the site". <u>See</u> ROD at p. 28. The ROD also states that "the best, most efficient truck routes will be determined in the design no matter which alternative is chosen." <u>See</u> ROD at p. 26.

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[6] <u>See</u> August 8, 2013 Memo from Walter Mugdan, Director Emergency and Remedial Response Division, EPA Region 2 to Amy R. Legare, Chair, NRRB. "The Region believes that the volume estimates in the FS are conservative enough to account for the heterogeneity in the fill, but agrees that additional sampling in the remedial design (RD) phase of the project would result in a more focused excavation plan and is likely to reduce the volume of material exceeding the recommended remediation goals". "As noted in the Site Characterization Comment, the Board suggests and the Region agrees, that the volume estimates in the FS are conservative, and more sampling may reduce the volume that actually needs to be removed to satisfy the Remediation Goal." <u>Id.</u> at 5 "The Region acknowledges that its preferred remedy is conservative, but believes, however, that leaving PCB-contaminated debris in a wetland environment creates too many uncertainties. Furthermore, removing PCB contamination in excess of 1 ppm allows more flexibility in the future use of the land and, as previously stated, would be consistent with NJDEP Non-Residential Direct Contact Soil Standard for PCBs. Id. At 5.

In contrast, the ROD provides that the rail line that runs near the Site was not suitable for shipping waste off-Site and that it not suitable for accepting rail cars…:" See ROD at pp. 14; 38. In fact, the ROD simply stated that the use of rail would be explored during the remedial design process. See ROD at pp. 14; 26. **The 100% FD and ESD lack any evaluation or comparative cost analysis with regard to the use of trucks which was contemplated by the ROD versus rail that was acknowledged not to work and which was simply going to be explored.**

The ESD includes a single line item cost estimate for the rail spur: "Rail Spur" $2.1M, but many other cost estimate items (including access roads/bridges at $1M, removal of site infrastructure $2.1M, and wetland restoration at $0.5M, total an additional $3.6M), yielding an aggregate cumulative cost of $5.7M. Additionally, the rail-related work adversely impacts many other cost items that are schedule dependent, and the significant increase in the waste disposal unit rate (discussed below), thereby increasing actual rail costs well beyond $5.7M. The $5.7M cost constitutes greater than 20% of the total project cost when compared to the ROD estimate, yet neither the 100% FD nor the ESD explains why rail has been included as part of the project. The 100% FD simply mentions that the rail will reduce local truck traffic, but in no way justifies the 20%+ increase, particularly when the ROD provides "designated truck routes already exist that can route trucks out of South Plainfield without using residential streets". See ROD at p. 26. As such, the addition of the rail not only requires attention in the ESD, but, if truly included in the project, constitutes the basis for a ROD Modification on its own.

The rail strategy not only serves to drive up the remedial construction costs, but it also results in significantly and inefficiently greater unit disposal costs by eliminating cost effective (and local) disposal options. Few viable close disposal facilities are accessible by rail; this effectively eliminates several closer and less expensive disposal facilities. The EPA-approved FS included pricing from local facilities that were capable of accepting the waste at a cost of $54/ton. The use of rail unnecessarily eliminates the ability to utilize these facilities; in contrast the rail-dependent disposal rate in the ESD is $71/ton. This disparity in disposal costs represents a 31.5% increase from the ROD to ESD for this important item. As discussed in Section II(c) above, the cost increase from ROD to 100% FD cannot reasonably be attributed to waste volume that has increased by only 1.7%. When applying the rail-related disposal cost increase to the waste volume that requires disposal, the cost increase is close to an additional $3 million ($71/ton - $54/ton = $17/ton increase x 169,550 tons = $2,882,350).

At a minimum, EPA is required to provide a detailed evaluation as to the use of established truck routes in comparison to the use of rail to remain compliant with the ROD and NCP. Further, the ROD provides that "[t]he selected remedial action will attempt to minimize collateral damage caused [to]…wetlands" See ROD at p. 24. The rail spur disturbs 1.6 acres of wetlands, which constitutes unnecessary collateral damage that is inconsistent with the ROD. Given the very high cost of the rail installation, the increased unit disposal costs associated with rail versus trucks, and the unnecessary destruction and restoration of

wetlands attributable to installation/removal of the rail, it cannot seriously be disputed that EPA's unsupported election to utilize rail is arbitrary and capricious.

d. EPA Inappropriately Expanded Impacts to Wetlands in the 100% FD

Combined with the significant increased cost estimate contemplated by the approach espoused by the ESD, EPA's expansion of the wetlands being impacted by the modifications contained in the 100% FD over those anticipated in the ROD further confirms the nature and extent of the Agency's arbitrary and capricious decision-making and the need to reopen the ROD. EPA's CERCLA guidance concerning wetland areas subject to disruption as part of a remedial action clearly state that a hierarchal approach should be taken with wetland impact avoidance being the preferred alternative with wetlands mitigation being the least favored (Considering Wetlands At CERCLA Sites, EPA May 1994). As stated previously, the ROD provides that "[t]he selected remedial action will attempt to minimize collateral damage caused [to]...wetlands." See ROD at p. 24.

1. EPA's choice to expand the disruption of existing wetlands through rail track installation and excavation area expansion is arbitrary and capricious as EPA's selected alternative to address these additional areas appears to be through wetlands mitigation, the least preferred alternative (Note that Alternative 4 was criticized by EPA in part based on the area of wetlands disturbance required to implement this remedial option; however, Alternative 6, as revised by the 100% FD more than doubles the area of wetlands impacts compared to Alternative 4.).

2. The Proposed Plan and ROD merely stated that the Agency would explore the viability of the construction of a rail spur without any additional discussion. EPA's 100% FD and ESD fail to provide any analysis, justification or cost comparison for the construction of the rail spur in contrast to hauling waste off-site via trucks (see additional discussion above).

3. In the ROD, EPA recognized the fact that at this Site wetlands "restoration can be difficult and requires significant time for revitalization" and relies on this concern in their screening of alternatives. The increased wetland disturbance contained in the 100% FD along with the cost increase which was only published later as part of the ESD fail to account for and address how these shortcomings to the design will be addressed.

The 100% FD impermissibly includes treatment of non-PTW/non-risk material and wetlands restoration projects, the costs of which are not properly recoverable under the NCP and CERCLA. The ROD states that "[i]mproving overall flood storage capacity within the wetland, while not an RAO, is an added potential value for the remedy...Alternative 6." See ROD at page 30. "EPA may partner with other stakeholders to identify further ecosystem enhancements that would NOT be implemented under CERCLA, including the removal of additional refuse...allowing restoration of original wetlands, and increasing flood storage by removing refuse and regarding the land." Id. "EPA has had discussions with NJDEP about wetlands mitigation projects and this has been mentioned at

CAG meetings. EPA has also stated that the possibility that NJDEP or other potential conservation partners may invest in a mitigation or conservation project at this location...For those discussions the landowner would need to be a willing participant." See ROD Responsiveness Summary at pp. 6; 20. Further, at page 39 of the Responsiveness Summary, EPA stated at the Public Meeting that the Army Corps of Engineers (ACOE) was a partner on the project. It is noted that the ACOE was responsible for overseeing the 100% FD. It is clear that there are significant elements of the re-crafted 100% FD remedy such as non-PCB waste management/consolidation, the unnecessary excavation/disposal of non-TSCA waste, and wetlands disturbance/restoration by EPA's partner, ACOE, are not recoverable under CERCLA. Instead of seeking other "stakeholders" to pay for the components of the project that are clearly outside the scope of CERCLA as acknowledged by EPA at the time the ROD was issued, the Agency has impermissibly included these costs in the 100% FD.

e. Capping which was Apparently Rejected by EPA in Selecting Alternative 6 Because of its Purported "Uncertainty" is Now Being Employed by EPA Under the 100% FD

As discussed above, EPA concluded that Alternative 4 met all of the threshold and balancing criteria thereby concluding that the remedy could be constructed in full compliance with CERCLA. The only justification provided by the Agency for its hesitation in moving forward with Alternative 4 was a vague suggestion of uncertainty as to the installation of the cap over low threat residual PCBs. "The Region acknowledges that its preferred remedy is conservative, but believes, however, that leaving PCB-contaminated debris in a wetland environment creates too many uncertainties." See August 8, 2013 Memo from Walter Mugdan, Director Emergency and Remedial Response Division, EPA Region 2 to Amy R. Legare, Chair, NRRB.

Before the NRRB, EPA suggested that the implementation and maintenance of a cap would be challenging in an aquatic environment and that the Alternative 6 remedy offered greater permanence. The EPA's 100% FD belies any such reservation. In justifying the selection of Alternative 6, EPA noted that monitoring of the cap would be necessary to ensure it remains effective, and raised the specter that capping creates "uncertainties" with regard to environmental receptors (e.g., burrowing animals). However, such statements fail to consider two factors relevant to a reasoned remedy selection decision. First, EPA is well aware that the monitoring and maintenance that will be legally required will ensure the effectiveness of the cap, as it has in countless other capping remedies EPA has selected at other Superfund sites in Region 2 and across the country and at countless other state-lead sites in New Jersey and elsewhere. Second, EPA has consistently concluded that capping provides adequate long-term protectiveness for low threat wastes,[7] including low level PCB-contaminated soil that is present here. See, e.g., 40 C.F.R. § 300.430(a)(1)(iii)(B) ("EPA expects to use engineering controls, such as containment, for waste that poses a relatively low long-term threat"); *A Guide on Remedial Actions at Superfund Sites with PCB Contamination*, EPA, Office of Solid Waste and Emergency Response ("OSWER") Directive

[7] EPA has long-since concluded that soil and waste containing PCB concentrations greater than the 1ppm PRG but less than 100ppm are "low threat wastes." See EPA Proposed Plan, at 7.

No. 9355.4-01FS, August 1990, at 3 (stating that containment of PCBs "should generally be implemented for . . . *low level contaminated materials remaining at the site*" (Emphasis added)).

f. State Law Allows Capping of the Waste at this Site

Even more glaring is the fact that the 100% FD now includes a cap, for a similar footprint and configuration as was included in Alternative 4, clearly eliminating the specter that such a cap creates uncertainties, is unsafe, cannot be maintained and is not implementable. See Capping Map attached as Exhibit A which depicts an overlay of the Alternative 4 cap against the new cap proposed for the first time in the 100% FD as a component of Alternative 6. Additionally, all of the residual waste has remained uncapped in its existing state for approximately 70 years and EPA has unequivocally stated in the Administrative Record that the Site has not caused any groundwater or surface water contamination.[8]

Under New Jersey's site remediation laws, the New Jersey Brownfield and Contaminated Site Remediation Act, N.J.S.A. 58:10B-1 et seq., expressly contemplates, allows for, and compels NJDEP to accept the use of a cap in this exact circumstance. The choice as to whether to use a capping remedy is solely made by the person responsible for conducting the cleanup. In this regard, N.J.S.A. 58:10B-12.g(1) specifically states that:

> Except as provided in this subsection, and section 27 of P.L.2009, c.60 (C.58:10C-27), the **department, however, may not disapprove the use of a restricted use remedial action or a limited restricted use remedial action so long as the selected remedial action meets the health risk standard established in subsection d. of this section, and where, as applicable, is protective of the environment.** Except as provided in this subsection and section 27 of P.L.2009, c.60 (C.58:10C-27), **the choice of the remedial action to be implemented shall be made by the person responsible for conducting the remediation in accordance with regulations adopted by the department and that choice of the remedial action shall be approved by the department if all the criteria for remedial action selection enumerated in this section, as applicable, are met.** (Emphasis added.)

It is undisputed that EPA and NJDEP concluded that Alternative 4 met all the threshold and balancing criteria thereby concluding that the remedy could be constructed in full compliance with CERCLA. Thus under New Jersey state site remediation law, capping of the >100ppm waste remains the presumptive remedy for the PCBs at this Site. To find otherwise and to ignore

[8] The cover page of the ROD states that "This remedy addresses the soil and debris contamination known to be attributable to capacitors that were dumped on Site. Based on data from the remedial investigation/feasibility study (RI/FS), a groundwater remedial action is not required." Page 9 of the ROD states that "the Site does not appear to be a current source of PCBs in Bound Brook surface water." Finally, Page 11 of the ROD provides "The 2007 RI groundwater results confirm the absence of Site-related COPCs in the upper bedrock unit. Furthermore, due to the presence of the clayey silt (which may act as a semi-confining unit) between the shallow overburden and bedrock units and the upward vertical hydraulic gradient, there is no potential for dissolved constituents in the overburden groundwater to migrate to the bedrock groundwater."

applicable state law as EPA has in its selection of Alternative 6, is arbitrary and capricious.

g. EPA Improperly Applied the TSCA PCB ARAR

The ROD does not properly apply and implement the Toxic Substances Control Act ("TSCA") PCB regulations. Capping PCBs up to 100ppm is so well recognized and is such a presumptive remedy that it is actually "self-implementing". The TSCA rules provide for flexibility for diversity of larger sites and cap design that fits local soil types. The FS and ROD rely on an older 1990 guidance document for PCB remediation, and do not properly address the TSCA PCB regulations that were significantly revised in 1998. Specifically, the entire section of the regulations for cleanup of PCB remediation waste (effectively the low-level PCB waste) was added by the USEPA to the PCB regulations in 1998 including identification of three PCB cleanup options:

- self-implementing 761.61(a)
- performance-based 761.61(b)
- risk-based 761.61(c)

Capping PCBs at up to 100ppm is essentially a default, presumptive remedy under the PCB regulations that were adopted in 1998.

The ROD appears to select what would be a performance-based alternative (i.e., complete removal to 1ppm PCB and off-site disposal at a landfill) without reference to the appropriate regulations and without justification, explanation or appropriate evaluation of the PCB remediation alternatives that are available for selection under the PCB regulations at 40 CFR § 761.61. **At any other Site up to 100ppm PCBs can be capped as a self-implementing remedy with only 30-days' notice to EPA.** The application of the TSCA PCB regulations is recognized by the NJDEP, which incorporates the requirements in its Site Remediation Program pursuant to the New Jersey Site Remediation Reform Act ("SRRA") and related statutes and regulations. **In fact, implementation of the TSCA PCB regulations to address PCB-contamination has resulted in capping of PCBs of up to 500ppm PCBs at several sites in New Jersey including the main CDE Superfund Site where the wastes at the Woodbrook Road Site originated.**

Additionally, in this instance EPA elected to disregard its own relevant guidance. EPA has prepared specific guidance for the remediation of PCB contaminated CERCLA sites. This document "Guidance on Remedial Actions for Superfund Sites with PCB Contamination" (EPA/540/G-90/007, Section 4.3) specifically states that: "Consistent with the Superfund expectations low-threat (PCB) material should generally be contained on site". On-site containment of the low-threat PCB material was the exact remedy proposed in Alternative 4.

By dismissing the PCB self-implementing alternatives under the TSCA PCB regulations, guidance and the applicable New Jersey statutes and regulations without proper consideration and without a technical basis, the EPA has acted arbitrarily and capriciously.

h. Additional Miscellaneous Cost Items in the 100% FD and ESD that are Inconsistent with the NCP and are Therefore Non-Recoverable

The 100% FD states that the remedy now includes collection and capping of non-contaminated waste. By definition, and as illustrated in the ROD, NRRB submissions, and commentary, non-contaminated waste is not part of Superfund. The 100% FD does not sufficiently address, and the ESD never addresses, the justification for adding this non-Superfund related work which is, on its face, inconsistent with the NCP. As such, the costs for the handling and capping of non-contaminated material is not a Superfund related cost. Further, the ESD cost estimate does not identify where these costs are included other than Excavation/Grading Uncontaminated Material ($0.9M) and upland seeding ($0.05M). However, many of the other tasks are based on the duration of the project, and the duration of the project is extended when additional non-Superfund tasks are added. So, the cost of the non-contaminated waste clearly exceeds $1.0M.

The 100% FD includes backfill/grading of the excavation areas. Many of the excavated areas will be under water, and excavated down to the native wetland subgrade. Backfilling not only covers up good, natural earth, consistent with the ecosystem, but it unnecessarily fills a floodplain and an undulating subgrade that is native to wetlands—neither the 100% FD nor the ESD explain why grading of this area makes sense (because it doesn't). The ESD identifies a cost of $1.6 million for this task, which is not only an unnecessary task, but a harmful one. The $1.6 million cannot properly be included as part of the work or the cost estimate.

The ESD cost estimate includes a "general conditions" task, which, at $4.5 million, is almost 10% of the total, without any explanation as to its applicability. Without any explanation or justification, this task and cost cannot be considered consistent with the NCP.

Lastly, the water management program explained in the 100% FD is excessive, targeting too broad an area at one time, which will lead to production issues, will greatly increase needed flow rates, jeopardize the wetlands (by over-extracting water out of a habitat that requires water to survive), and escalate the treatment costs. The ESD identifies a cost estimate line item of $0.4 million for a water treatment system, and $1.2 million for operation of the system plus sheet piles for $0.6 million (for a total cost of $2.2 million). An efficient water management program **was included** in the FS and related ROD cost estimate and can be accomplished for no more than $0.8 million. Therefore, the 100% FD water management program does not comport with the cost-effectiveness requirements of the NCP. Further, the 100% FD water management program contradicts the ROD requirement that steps be taken to protect wetlands (as the 100% FD water management program jeopardizes the wetlands).

Thus, in summary, the significant cost estimate differential between the Alternative 6 ROD remedy and the ESD is not attributable to increases in disposal quantities, as stated in the ESD. Rather, the cost differential appears to be attributable to the addition of non-Superfund refuse and related costs, unnecessary cost increases related to the improper decision to utilize rail, higher disposal costs uniquely attributable to the transport of waste via rail, excessive and potentially harmful wetlands and water management, and other superfluous unit pricing and schedule/overhead increases. In fact, as evidenced in Table 1 of this letter, the actual recoverable

Superfund related cost to implement the Alternative 6 remedy should now be $20 million, representing a net DECREASE of $5 million from the ROD, but for the inclusion of superfluous remedial design elements that are outside of CERCLA and the NCP.

CONCLUSION

TRC appreciates the work EPA and their partners have put into the project. However, as the project continues to advance, the more evident it becomes that Alternative 6 cannot be implemented in a manner that is consistent with the NCP and Superfund, and that the Alternative 4 remedy should have been selected by the Agency in the first instance. In light of the foregoing, the ROD should be reopened, and Alternative 4 should be selected as the final remedy for the Site.

TRC requests that this Technical Memorandum be included as part of the Administrative Record for the Woodbrook Road Dump Superfund Site.